Selinonlib Documentation

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Contents

Selinonlib is a library and tool that is used in Selinon - a tool for dynamic data control flow on top of Celery distributed task queue. See Selinon documentation for more info. The project is hosted on GitHub.

Note: This documentation is for developers. If you want to get familiar with Selinon check Selinon documentation first.

CHAPTER 1

Core Selinonlib

selinonlib.builtinPredicate	Built-in predicates used as core building blocks to build predicates.
selinonlib.config	User configuration.
selinonlib.cacheConfig	Configuration for caching.
selinonlib.edge	Edge representation in task/flow dependency graph.
selinonlib.failureNode	Failure node handling representation.
selinonlib.failures	Task and flow failure handling.
selinonlib.flow	A flow representation.
selinonlib.globalConfig	User's global configuration section parsed from YAML config file.
selinonlib.helpers	Selinonlib library helpers.
selinonlib.leafPredicate	Leaf predicate in condition - should always return True/False for the given input.
selinonlib.node	Abstract representation of nodes in task/flow dependencies - a node is either a task or a flow.
selinonlib.predicate	Predicate interface - predicate for building conditions.
selinonlib.selectiveRunFunction	Function that is run on selective flow/task run.
selinonlib.storage	Storage configuration and abstraction from YAML config file.
selinonlib.strategy	Strategy for scheduling dispatcher - system state sampling.
selinonlib.system	Core Selinonlib logic - system representation, parsing and handling actions.
selinonlib.taskClass	A Python class abstraction.
selinonlib.task	A task representation from YAML config file.

CHAPTER 2

Task result and task state caches

selinonlib.caches	Implementation of some well-known caches for Selinon.
selinonlib.caches.fifo	First-In-First-Out cache implementation.
selinonlib.caches.lifo	Last-In-First-Out cache implementation.
selinonlib.caches.lru	Least-Recently-Used cache implementation.
selinonlib.caches.mru	Most-Recently-Used cache implementation.
selinonlib.caches.rr	Random replacement cache implementation.

CHAPTER 3

Built-in predicates

`selinonlib.predicates`	Built-in predicates shipped with Selinon.

CHAPTER 4

Run-time support routines

`selinonlib.routines`	Supporting routines for run time.

CHAPTER 5

CLI simulator implementation

selinonlib.simulator	A primitive simulator for Selinon.
selinonlib.simulator.celeryMocks	Injected Celery related implementations of methods.
selinonlib.simulator.progress	Indicate progress and sleep for given time.
selinonlib.simulator.queuePool	Pool of all queues in the system.
selinonlib.simulator.simulator	Simulate execution in a single CLI run.
selinonlib.simulator.timeQueue	A queue that respect timestamps of records that were pushed into it.

CHAPTER 6

Storage and database adapters

selinonlib.storages	Various pre-implemented database adapters for Selinon for storage usage.
selinonlib.storages.inMemoryStorage	In memory storage implementation.
selinonlib.storages.mongo	MongoDB database adapter.
selinonlib.storages.redis	Selinon adapter for Redis database.
selinonlib.storages.s3	Selinon adapter for Amazon S3 storage.
selinonlib.storages.sqlStorage	Selinon SQL Database adapter - PostgreSQL.

CHAPTER 7

Migrations

selinonlib.migrator	Migrations of configuration files.
selinonlib.migrator.migrator	Migration of configuration files.

CHAPTER 8

Predefined scheduling strategies

`selinonlib.strategies`	Prepared functions for scheduling dispatcher.

CHAPTER 9

Indices and tables

- genindex
- modindex
- search

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